

AEMC® INSTRUMENTS

### AC CURRENT PROBE MN352 / MN353

Cat.# 2116.26/ 2116.27

### **GENERAL DESCRIPTION**

The MN probe is the latest in compact AC Current probes. Designed to meet the most stringent demands in industry and electrical contracting, they also meet the latest safety and performance standards.

### **ELECTRICAL SPECIFICATIONS**

Operating Range: 150A

Measurement Range: 0.1 to 150A

Transformation Ratio: Voltage output Output Signal: 10mV/A (1V at 100AAC)

Range	Accuracy
0.1 to 1A	≤ 3% of Reading ± 0.2mV
1 to 20A	≤ 2% of Reading ± 0.2mV
20 to 80A	≤ 1% of Reading
80 to 150A	≤ 3% of Reading
150 to 200A	≤ 7% of Reading

Range	Phase Shift
0.1 to 1A	N/A
1 to 20A	≤ <b>3</b> °
20 to 80A	≤ <b>2</b> °
80 to 150A	≤ <b>3</b> °
150 to 200A	≤ <b>4</b> °

Overload: 240A for 10 min ON, 30 min OFF

\*Reference conditions: 18°C to 28°C, 20 to 75% RH, external magnetic field <40 A/m, 48 to 65 Hz sine wave, distortion factor less than 1%, no DC component, no external current carrying conductor, test sample centered. Load impedance>  $1M\Omega$ .

Frequency Range: 40 to 10kHz

**Limit Operating Conditions:** 200A permanently to 1kHz: Derating above 3 kHz: 200 A x (1/0.333F), F in kHz

Crest Factor: 3 @ 150Arms with an error (due to CF) of 3%

Working Voltage: 600Vrms

Common Mode Voltage: 600Vrms

Influence of Adjacent Conductor: <15mA/A at 50Hz

Influence of DC on AC signal: DC current <20A, < 5%

Influence of Conductor Position in Jaw:

0.5% of mV output @ 50/60Hz Influence of Frequency:

40 Hz to 1 kHz: 3% of mV output 1 kHz to 10 kHz: 12% of mV output

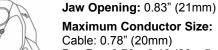
Influence of Load:

< 3% of mA output from 40 Hz to 1 kHz < 12% of mA output from 1 kHz to 10 kHz

### MECHANICAL SPECIFICATIONS

**Dimensions:** 5.47 x 2.00 x 1.18" (139 x 51 x 30 mm)

Weight: 180 g (6.5 oz)



Bus Bar: 0.78 x 0.19 (20 x 5mm) Case Protection: IP 40 (IEC 529) **Drop Test:** 1.0 m (IEC 68-2-32)

Mechanical Shock: IEC 68-2-27 Vibration: IFC 68-2-6

**Polycarbonate Material:** Jaws: Polycarbonate with 10% fiberglass charge, Red UL 94 V0

Case: Polycarbonate 920A Gray Opening Operations - Life: > 50,000

Output:

MN352: Two standard safety banana jacks (4 mm)

MN353: Double/reinforced insulated 5 ft (1.5 m) lead with 4mm

safety banana plug

## **ENVIRONMENTAL SPECIFICATIONS**

**Operating Temperature:** 14° to 131°F (-10° to +55°C)

Storage Temperature: -40° to 158°F (-40° to +70°C)

Altitude: Non-operating: 0 to 12,000 m

Operating: 0 to 2000 m

Operating Relative Humidity:

10-35°C 85% RH (without roll-off above 35°C)

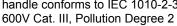
Influence of Temperature:

≤ 150 ppm/°K, or 0.15% of mV output per 10°K Influence of Humidity (10 to 90% RH): ≤ 0.2% of mV output per 10°K @ 18°C to 28°C

# SAFETY SPECIFICATIONS

## **Electrical:**

Double insulation or reinforced insulation between the primary or secondary and the outer case of the handle conforms to IEC 1010-2-32.



### Dielectric Strength:

5550 V, 50/60 Hz between primary, secondary and the outer case of the handle

**Electromagnetic Compatibility:** 

EN 50081-1 Class B

EN 50082-2 Electrostatic discharge; IEC 1000-4-2

Radiated field IEC 1000-4-3 Fast transients IEC 1000-4-4

Magnetic field at 50/60 Hz IEC 1000-4-8

## ORDERING INFORMATION

AC Current Probe MN352	Cat #2116.26
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#### Accessories:

MN352 - Leads, set of 2, 5 ft safety (1000V)	Cat #2111.29
Banana plug adapter (to non-recessed plug)	Cat #1017.45

Rev 01 01/09

1.800.561.8187









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